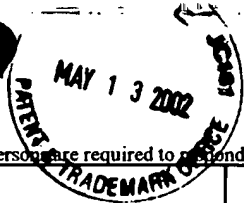


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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Application Number	09/981,289
				Filing Date	October 15, 2001
				First Named Inventor	DAHIYAT, Bassil I.
				Group Art Unit	1647
				Examiner Name	J. Seharaleyon
Sheet	1	of	4	Attorney Docket Number	A-68990-3/RFT/RMS/RMK

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
J.S.	A1	4,677,063		Mark et al.	06-1987	
	A2	4,677,064		Mark et al.	06-1987	
	A3	4,879,226		Wallace et al.	11-1989	
	A4	4,894,439		Dorin et al.	01-1990	
	A5	4,948,875		Tanaka et al.	08-1990	
	A6	4,990,455		Yamagishi et al.	02-1991	
	A7	5,028,420		Masegi et al.	07-1991	
	A8	5,081,021		Mizuno et al.	01-1992	
	A9	5,151,349		Tanaka et al.	09-1992	
	A10	5,160,483		Postlethwaite et al.	11-1992	
	A11	5,180,811		Doerper et al.	01-1993	
	A12	5,262,309		Nakamura et al.	11-1993	
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	A14	5,422,104		Fiers et al.	06-1995	
	A15	5,478,925		Wallach et al.	12-1995	
	A16	5,512,544		Wallach et al.	04-1996	
	A17	5,597,899		Banner et al.	01-1997	
✓	A18	5,606,023		Chen et al.	02-1997	

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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
J.S.	B1	EP	0 254 647	A2	mitsubishi chem. ind.,	01-1988	
	B2	EP	0 486 908	A3	F. Hoffmann-La Roche	05-1992	
	B3	WO	98/47089	A1	CALIFORNIA INSTITUTE	10-1998	
	B4	WO	00/23564	A2	XENCOR, INC.	04-2000	
	B5	WO	01/25277	A1	MAXYGEN APS	04-2001	
	B6	CA	2,005,051		Boehm et al.	06-1990	
	B7	JP	60-252496		ASAHI CHEM IND CO, LTD	12-1985	Abstract
✓	B8	JP	03-180194		TEIJIN LTD.	08-1991	Abstract

Examiner Signature	J. Seharaleyon	Date Considered	10/20/02
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<b>Application Number</b>	09/981,289
<b>Filing Date</b>	October 15, 2001
<b>First Named Inventor</b>	DAHİYAT, Bassil I.
<b>Group Art Unit</b>	1647
<b>Examiner Name</b>	J. Seharaseyn
<b>Attorney Docket Number</b>	A-68990-3/RFT/RMS/RMK

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Sheet	2	of	4
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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>2</sup> (if known)				
JS	B9	JP	03-297388		UBE IND LTD.	12-1991	Abstract	
	B10	JP	04-079880		ISHIHARA SANGYO KAISHA	03-1992	Abstract	
	B11	JP	04-182497		ISHIHARA SANGYO KAISHA	06-1992	Abstract	
	B12	JP	04-182498		ISHIHARA SANGYO KAISHA	06-1992	Abstract	
	B13	JP	04-368398		ISHIHARA SANGYO KAISHA	12-1992	Abstract	
	B14	JP	05-271287		ISHIHARA SANGYO KAISHA	10-1993	Abstract	
	B15	JP	05-271289		ISHIHARA SANGYO KAISHA	10-1993	Abstract	
	B16	JP	05-255393		ISHIHARA SANGYO KAISHA	10-1993	Abstract	
	B17	WO	90/07579	A1	BASF	07-12-1990		
	B18	WO	94/18325	A1	N.V. INNOGENETICS	08-18-1994		
	B19	WO	98/51344	A1	KENNEDY INST.	11-19-1998		

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	09/981,289		
		Filing Date	October 15, 2001		
		First Named Inventor	DAHIYAT, Bassil I.		
		Group Art Unit	1645		
		Examiner Name	J. Schaefer		
Sheet	3	of	4	Attorney Docket Number	A-68990-3/RFT/RMS/RMK

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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JS	C1	ARAKAWA et al., "Alteration in folding efficiency and conformation of recombinant human tumor necrosis factor-alpha by replacing cysteines 69 and 101 with aspartic acid 69 and arginine 101," <i>Protein Eng</i> 3(8):721-724 (Aug 1990)	
	C2	BARBARA et al., "Tumour necrosis factor-alpha (TNF-alpha): the good, the bad and potentially very effective," <i>Immunol Cell Biol</i> 74(5):434-443 (Oct 1996)	
	C3	CEN et al., "Glycine68 to histidine73 has an important role in the function of human tumor necrosis factor alpha," <i>Biochem Mol Biol Int</i> 43(1):47-52 (Sep 1997)	
	C4	CREASEY et al., "Biological effects of recombinant human tumor necrosis factor and its novel muteins on tumor and normal cell lines," <i>Cancer Res</i> 47(1):14-149 (Jan 1987)	
	C5	JONES et al., "The three-dimensional structure of tumour necrosis factor," <i>Prog Clin Biol Res</i> 349:321-327 (1990)	
	C6	LOETSCHER et al., "Human tumor necrosis factor alpha (TNF alpha) mutants with exclusive specificity for the 55-kDa or 75-kDa TNF receptors," <i>J Biol Chem</i> 268(35):26350-26357 (Dec 1993)	
	C7	MASEGI et al., "Characterization of a novel human tumor necrosis factor-alpha mutant with increased cytotoxic activity," <i>Jpn J Cancer Res</i> 86(1):72-80 (Jan 1995)	
	C8	NARACHI et al., "Role of single disulfide in recombinant human tumor necrosis factor-alpha," <i>J Biol Chem</i> 262(27):13107-13110 (Sep 1987)	
	C9	PEITSCH, M.C. and TSCHOPP, J., "Comparative molecular modelling of the Fas-ligand and other members of the TNF family," <i>Mol Immunol.</i> 1995 Jul;32(10):761-72	
	C10	SATO et al., "Differentiation induction by a tumor-necrosis-factor mutant 471 in human myelogenous leukemic cells via tumor-necrosis-factor receptor-p55," <i>Int J Cancer</i> 78(2):223-232 (oct 1998)	
	C11	SHIN et al., "A novel tumor necrosis factor-alpha mutant with significantly enhanced cytotoxicity and receptor binding affinity," <i>Biochem Mol Biol Int</i> 44(6):1075-1082 (May 1998)	
	C12	TAVERNIER et al., "Analysis of the structure-function relationship of tumour necrosis factor. Human/mouse chimeric TNF proteins: general properties and epitope analysis," <i>J Mol Biol</i> 211(2):493-501 (Jan 1990)	
	C13	VAN OSTADE, X., et al., "Localization of the active site of human tumour necrosis factor (hTNF) by mutational analysis," <i>EMBO J</i> 10(4):827-836 (1991); Erratum in <i>EMBO J</i> 11(8):315 (1992)	
	C14	VAN OSTADE et al., "Structure-activity studies of human tumour necrosis factors," <i>Protein Eng</i> 7(1):5-22 (Jan 1994)	
	C15	VAN OSTADE et al., "Two conserved tryptophan residues of tumor necrosis factor and lymphotoxin are not involved in the biological activity," <i>FEBS Lett</i> 238(2):347-352 (Oct 1988)	

Examiner Signature	<i>J. Schaefer</i>	Date Considered	<i>10/21/01</i>
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				Application Number	09/981,289
				Filing Date	October 15, 2001
				First Named Inventor	DAHIYAT, Bassil I.
				Group Art Unit	1647
				Examiner Name	J. Selvaraj
				Attorney Docket Number	A-68990-3/RFT/RMS/RMR
Sheet	4	of	4		

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